

What Is Claimed Is:

1. A fuel injector (1) for fuel injection systems of internal combustion engines, having a solenoid coil (10); an armature (20) acted upon in a closing direction by a restoring spring (23); and a valve needle (3), which is connected to the armature (20) by force-locking and at which a valve-closure member (4) is formed, which forms a sealing seat together with a valve-needle surface (6), the armature (20) striking against a stop face (39) of an inner pole (13) of the solenoid coil (10) by way of an armature stop face (38), and the armature stop face (38) and/or the stop face (39) are provided with a coating (40), wherein the coating (40) has a surface structure (41) having raised areas (42) and recessed areas (43).
2. The fuel injector as recited in Claim 1, wherein the raised areas (42) have a dome-shaped design.
3. The fuel injector as recited in Claim 1 or 2, wherein a height difference between the raised and recessed areas (42, 43) is dimensioned such that it is greater than a removal of the raised areas (42) occurring as a result of loading.
4. The fuel injector as recited in Claim 3, wherein the height difference is between 5  $\mu\text{m}$  and 10  $\mu\text{m}$ .
5. The fuel injector as recited in one of Claims 1 through 4, wherein the coating (40) is made of chromium.
6. The fuel injector as recited in Claim 5, wherein the coating (40) is made up of a plurality of chromium layers.